Peaceful Nuclear Cooperation

U.S. Support for NPT Article IV

UNITED STATES & UZBEKISTAN

Through the International Atomic Energy Agency (IAEA), the United States contributes to the work of many countries using nuclear materials and technology for peaceful purposes. In recent years, U.S. support has focused on achieving tangible and lasting benefits in fields that are vital to human development, including agriculture, human health, water resource management, and human resource development. Since 2000, the IAEA has approved and funded $6,185,839, including $276,523 in 2013, under its Technical Cooperation (TC) program for projects in Uzbekistan.

In addition to the United States' longstanding support for the IAEA's activities to promote peaceful nuclear applications, at the 2010 NPT Review Conference, the United States announced a $100 million USD effort to expand this support over the next five years. The United States has pledged $50 million towards the IAEA's Peaceful Uses Initiative (PUI), focusing on human health, food security, water resource management, and nuclear power infrastructure development.

The United States views its support for peaceful uses of nuclear energy, to which all NPT Parties are entitled, as a critical part of its broader effort to strengthen the IAEA and the global nuclear nonproliferation regime. The U.S. has already designated over $22 million for IAEA projects benefitting over 120 countries, including Uzbekistan, for which funding was previously unavailable. The United States is working with partners to reach the $100 million goal, and welcomes commitments of over $12 million from Japan, the Republic of Korea, New Zealand, the Czech Republic, Hungary, Sweden, Australia, France, Indonesia, Brazil, Italy, the UK and Kazakhstan.

NUCLEAR ENERGY

Due to the continued increase in fossil fuel prices, concerns about secure supply and an increasing awareness of the importance of greenhouse gas reductions, several countries are considering expanding their nuclear power programs or introducing nuclear energy for the first time. This requires careful planning, preparation and investment in a sustainable infrastructure to provide the legal, regulatory, technological, and human resources necessary. Uzbekistan is therefore participating in a regional TC project sponsored by the United States to strengthen national and regional infrastructures for the planning and development of nuclear power programs. The project will ensure that any Member State planning the introduction or expansion of nuclear energy has a complete understanding of the range of issues and activities to be addressed before implementation of a nuclear power project.

NUCLEAR FUEL

Recently, several countries, including Uzbekistan, participated in U.S.-sponsored regional TC projects to convert research reactor cores from highly enriched uranium (HEU) to low enriched uranium (LEU) and facilitate the return of highly enriched and low-enriched uranium to the country of origin. The projects assisted participating countries with research reactors to repatriate, manage, or dispose of their fresh or irradiated fuel, and supported the Russian Research Reactor Fuel Return program and the Global Threat Reduction Initiative.

NUCLEAR SAFETY

Disused facilities and sites contaminated because of activities involving the use of radioactive material exist worldwide and many pose continuing health risks to adjacent communities and, potentially, to the wider public. Uzbekistan is currently participating in an interregional TC project sponsored by the United States that will provide support and assistance toward the efficient clean-up of radioactive contaminated facilities and sites. Through this project, barriers to the acceptance of continued or expanded applications of peaceful uses

1. *Nuclear power plant under construction. Credit: IAEA*
2. *Exploring ways to secure radioactive waste for generations to come. Credit: Comet*
3. *Verifying a load of highly enriched uranium fuel before it is brought back to Russia. Credit: Dean Calma/IAEA*

of nuclear technology can, to some extent, be removed.

Uzbekistan is also participating in regional TC projects through which Member States will improve their comprehensive regulatory infrastructure for the safety and control of radiation sources, establish and develop adequate and effective regulatory mechanisms, and harmonize and streamline national capabilities for regulatory control in full compliance with the IAEA Safety Standards and international requirements.

Through a national TC project sponsored by the United States Uzbekistan is improving the operational safety of the research reactor at the Institute of Nuclear Physics to conform with international standards.

AGRICULTURE

The Mediterranean fruit fly causes major damage by reducing fruit and vegetable production, increasing insecticide use, and hindering international trade in fruits and vegetables.

Uzbekistan is working through a regional TC project sponsored by the United States to enhance agricultural productivity in the Balkans and Eastern Mediterranean by supporting fruit fly pest prevention and management. This will be accomplished through sharing technical knowledge and providing support to selected fruit fly suppression programs in which the use of the sterile insect technique (SIT), as part of an area-wide integrated management approach, has already proven to be technically and economically feasible.

HUMAN HEALTH

One of the greatest challenges developing countries face in fighting cancer is devising plans for building cancer control capacity. Through the IAEA's Programme of Action for Cancer Therapy (PACT), the IAEA has conducted imPACT reviews with funding contributions from the United States in 18 countries, including Uzbekistan. These reviews evaluate the country's readiness to implement cancer control programs, assess the national cancer burden, and provide recommendations on developing the country's cancer control capacity.

HUMAN RESOURCES

To contribute to Member States' manpower development, the IAEA awards individual fellowships and organizes group training courses. Every year, numerous fellows and training course participants travel to the United States for training in various peaceful uses of nuclear technology and return to their home country to apply the lessons learned.

Since 2000, the United States has hosted multiple training courses that included Uzbekistani participants in fields such as decommissioning, nuclear security, and safety. Training was also provided through the IAEA Fellowship Program to two Uzbekistanis, one of which was sponsored by the United States, in the field of plant breeding and genetics.

Additionally, since 2000, three U.S. experts have traveled to Uzbekistan to collaborate through IAEA Technical Cooperation projects. Topics included infrastructure, soil water balance, and research reactor coalitions.

Damaged apples infested with fruit flies. Credit: Louise Potterton/IAEA

Through bilateral efforts, the United States has provided direct support to Member States through various collaborative projects such as the exchange of information, expert visits, and training of personnel

In 2002, the U.S. Department of Energy's Argonne National Laboratory and the Uzbekistan Academy of Sciences, Institute of Nuclear Physics became party to a memorandum of understanding to establish a cooperative relationship in research and exchange scientific and technical information regarding peaceful uses of nuclear energy. The funding amount provided by the DOS equaled $80,000.

Additionally, since 2000, one Uzbekistani physician has been certified in the U.S. through the American Board of Nuclear Medicine.